

Observations of wave-like motions from the BLLAST 2011 field campaign

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Some preliminary results from wave-like-motion observations obtained during the Boundary Layer Late Afternoon and Sunset Turbulence (BLLAST 2011) field campaign will be shown in this presentation. BLLAST took place from 14 June to 8 July 2011 in Lannemezan (France) and its main objective was to improve the understanding and model representation of the turbulent processes of the boundary layer late afternoon transition, including gravity waves effects. The instrumentation deployed during BLLAST included three high resolution microbarometers PAROSCIENTIFIC (Model 6000-16b) near surface forming a triangle. The objective of these microbarometers was to detect small scale pressure fluctuations produced in the planetary boundary layer (PBL) as well as higher mesoscale structures. Multiscale analysis (MutiResolution Flux Decomposition and wavelet transform) have been used to study some of these wave-like structures, and their wave parameters (wavelength, phase speed, direction of propagation). Events related to stormy activity during the campaign as well as those produced during fair weather situations in the nocturnal stable boundary layer will be shown pointing out their different characteristics and possible sources of these waves.

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